AMENDMENT TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of the claims in the application.

LISTING OF CLAIMS

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of inhibiting oxidation of a porous carbon-carbon composite comprising ~~the steps of~~:

(a) imparting hydrolytic stability to the carbon-carbon composite by contacting the carbon-carbon composite with an oxidation inhibiting composition comprising phosphoric acid or an acid phosphate salt, at least one aluminum salt, and at least one additional metal salt, the additional metal salt comprising a salt of an alkaline earth metal, boron, iron, tin, or a mixture of two or more thereof, wherein said oxidation inhibiting composition has a metal to phosphate atomic ratio of 0.26 to 0.4, the oxidation inhibiting composition penetrating at least some of the pores of the carbon-carbon composite; and

(b) heating the carbon-carbon composite at a temperature sufficient to form a deposit from the oxidation inhibiting composition within at least some of the penetrated pores of the carbon-carbon composite

~~wherein the oxidation inhibiting composition is resistant to moisture sensitivity and reduces the treated carbon-carbon composite's sensitivity to reduction in friction.~~

2. (Canceled)

3. (Original) The method of claim 1 wherein the weight ratio of the additional metal to aluminum is in the range of about 0.5 to 1 to about 5 to 1.

4. (Original) The method of claim 1 wherein the oxidation inhibiting composition further comprises water, a nonaqueous polar liquid, or a mixture thereof.

5-7. (Cancelled)

8. (Original) The method of claim 1 wherein the additional metal salt comprises an alkaline earth metal salt.

9. (Original) The method of claim 1 wherein the additional metal salt comprises an alkaline earth metal phosphate.

10. (Original) The method of claim 1 wherein the additional metal salt comprises a magnesium phosphate.

11. (Original) The method of claim 1 wherein the additional metal salt comprises an alkaline earth metal nitrate, an alkaline earth metal halide, an alkaline earth metal sulfate, or a mixture of two or more thereof.

12. (Original) The method of claim 1 wherein the additional metal salt comprises a magnesium nitrate, magnesium halide, magnesium sulfate, or a mixture of two or more thereof.

13. (Original) The method of claim 1 wherein the additional metal salt comprises: (i) magnesium phosphate; and (ii) a magnesium nitrate, magnesium halide, magnesium sulfate, or a mixture of two or more thereof.

14. (Original) The method of claim 1 wherein the aluminum salt comprises an aluminum halide, an aluminum nitrate, an aluminum phosphate, aluminum sulfate, or a mixture of two or more thereof.

15. (Original) The method of claim 1 wherein the aluminum salt comprises mono-aluminum phosphate.

16. (Original) The method of claim 1 wherein the oxidation inhibiting composition further comprises a wetting agent.

17. (Original) The method of claim 16 wherein the wetting agent comprises a polyol, an alkoxylated monohydric alcohol, a silicone surfactant, a polysiloxane, or a mixture of two or more thereof.

18. (Original) The method of claim 1 wherein the oxidation that is inhibited is a catalyzed oxidation.

19. (Original) The method of claim 1 wherein the composite is heated during step (b) at a temperature in the range of about 200°C to about 1000°C.

20. (Original) The method of claim 1 wherein a barrier coating is applied to at least one surface of the carbon-carbon composite prior to step (a) or subsequent to step (b).

21. (Original) The method of 20 wherein the barrier coating comprises a carbide or a nitride.

22. (Original) The method of claim 20 wherein the barrier coating comprises boron nitride, silicon carbide, titanium carbide, boron carbide, silicon oxycarbide, silicon nitride, or a mixture of two or more thereof.

23. (Original) The method of claim 20 wherein the barrier coating is applied to the carbon-carbon composite using chemical vapor deposition.

24. (Original) The method of claim 20 wherein the barrier coating is formed by reacting the carbon-carbon composite with molten silicon.

25. (Original) The method of claim 1 wherein the depth of penetration of the oxidation inhibiting composition into the pores of the carbon-carbon composite is in the range of about 2.5 to about 5 millimeters.

26-56. (Canceled)

57. (Previously presented) The method of claim 1, wherein step (a) comprises contacting a selected region of the carbon-carbon composite with the oxidation inhibiting composition.

58. (Canceled)

59. (Previously presented) The method of claim 1, wherein the oxidation inhibiting composition has a moisture sensitivity of about 20% or less as indicated by the % moisture pick up of the composition in a humidity cabinet at 30°C or 40°C and 95% relative humidity.

60. (Previously presented) The method of claim 1, wherein the oxidation inhibiting composition has a moisture sensitivity of about 10% or less as indicated by the % moisture pick up of the composition in a humidity cabinet at 30°C or 40°C and 95% relative humidity.

61. (Previously presented) The method of claim 1, wherein the oxidation inhibiting composition has a moisture sensitivity of about 1% or less as indicated by the % moisture pick up of the composition in a humidity cabinet at 30°C or 40°C and 95% relative humidity.

62. (New) The method of claim 1, wherein the oxidation inhibiting composition further comprises nitric acid.

63. (New) The method of claim 1, wherein the at least one additional metal salt consists of a magnesium salt.

64. (New) The method of claim 1, wherein the at least one additional metal salt consists of magnesium nitrate.

65. (New) The method of claim 1, wherein the at least one additional metal salt is selected from the group consisting of boron, iron and tin.

66. (New) The method of claim 1, wherein the at least one additional metal salt is selected from the group consisting of magnesium phosphate tribasic octahydrate and magnesium chloride hexahydrate.